

CLAIMS

What is claimed is:

1. A computer component operating temperature inspecting method for use on a computer component that is equipped with a built-in temperature detecting function and is
5 based on a standardized bus architecture, for the purpose of inspecting the current operating temperature of the computer component via the bus architecture, and which is capable of, in the event of the computer component being subjected to a deadlock condition, restoring the computer component back to normal operation to allow the computer component's current operating temperature to be able to be inspected;
10 the computer component operating temperature inspecting method comprising:
issuing a temperature request signal via the bus architecture to the computer component to request the computer component to send back an operating temperature message that indicates the current operating temperature of the computer component;
counting for a prespecified length of duration promptly after the issuing of the
15 temperature request signal;
at the elapse of the prespecified length of duration, checking whether an operating temperature message has been received via the bus architecture from the computer component; if NO, issuing a reset signal and send the reset signal via a dedicated signal line to the computer component for the purpose of resetting the computer component to
20 reestablish link with the bus architecture; and
inspecting whether the linking between the bus architecture and the computer component is acknowledged; if YES, reissuing a temperature request signal via the bus architecture to the computer component to request the computer component to send back

an operating temperature message that indicates the current operating temperature of the computer component.

2. The computer component operating temperature inspecting method of claim 1, wherein the bus architecture is an SMBus/I2C-compliant bus architecture.

5 3. The computer component operating temperature inspecting method of claim 1, further comprising:

generating a human-perceivable alarm message in the event that the linking between the computer component and the bus architecture is unable to be reestablished after the resetting of the computer component.

10 4. A computer component operating temperature inspecting system for use with a computer component that is equipped with a built-in temperature detecting function and is based on a standardized bus architecture, for the purpose of inspecting the current operating temperature of the computer component via the bus architecture, and which is capable of, in the event of the computer component being subjected to a deadlock
15 condition, restoring the computer component back to normal operation to allow the computer component's current operating temperature to be able to be inspected;

the computer component operating temperature inspecting system comprising:

a data communication interface, which is compliant with and connected to the standardized bus architecture so as to exchange messages with the computer component
20 via the bus architecture;

a temperature request issuing module, which is capable of issuing a temperature request signal via the data communication interface and the bus architecture to the computer component to request the computer component to send back an operating

temperature message that indicates the current operating temperature of the computer component;

a timing module, which is capable of being activated to register time for a prespecified length of duration promptly after the issuing of the temperature request signal
5 by the temperature request issuing module;

a response checking module, which is capable of being activated at the elapse of the prespecified length of duration to check whether an operating temperature message has been received by the data communication interface via the bus architecture from the computer component, and if NO, capable of generating a deadlock message;

10 a reset-signal issuing module, which is capable of being activated in response to the deadlock message from the response checking module to issue a reset signal and send the reset signal via a dedicated signal line to the computer component for the purpose of resetting the computer component to reestablish link with the bus architecture; and

an acknowledgement inspecting module, which is capable of being activated
15 promptly after the issuing of the reset signal to inspect whether the linking between the data communication interface and the computer component via the bus architecture is acknowledged, and if YES, capable of issuing a reissue request to the temperature request issuing module to request the temperature request issuing module to reissue a temperature request signal via the bus architecture to the computer component to request the computer
20 component to send back an operating temperature message that indicates the current operating temperature of the computer component.

5. The computer component operating temperature inspecting system of claim 4, wherein the bus architecture is an SMBus/I2C-compliant bus architecture.

6. The computer component operating temperature inspecting system of claim 4, further comprising:

an alarm module, which is capable of generating a human-perceivable alarm message in the event that the acknowledgement inspecting module inspects that the linking
5 between the computer component and the bus architecture is unable to be acknowledged after the resetting of the computer component..

7. A computer component operating temperature inspecting system for use with a computer component that is equipped with a built-in temperature detecting function and is based on an SMBus/I2C bus architecture, for the purpose of inspecting the current
10 operating temperature of the computer component via the SMBus/I2C bus architecture, and which is capable of, in the event of the computer component being subjected to a deadlock condition, restoring the computer component back to normal operation to allow the computer component's current operating temperature to be able to be inspected;

the computer component operating temperature inspecting system comprising:

15 a data communication interface, which is compliant with and connected to the SMBus/I2C bus architecture so as to exchange messages with the computer component via the SMBus/I2C bus architecture;

a temperature request issuing module, which is capable of issuing a temperature request signal via the data communication interface and the SMBus/I2C bus architecture to
20 the computer component to request the computer component to send back an operating temperature message that indicates the current operating temperature of the computer component;

a timing module, which is capable of being activated to register time for a prespecified length of duration promptly after the issuing of the temperature request signal by the temperature request issuing module;

5 a response checking module, which is capable of being activated at the elapse of the prespecified length of duration to check whether an operating temperature message has been received by the data communication interface via the SMBus/I2C bus architecture from the computer component, and if NO, capable of generating a deadlock message;

10 a reset-signal issuing module, which is capable of being activated in response to the deadlock message from the response checking module to issue a reset signal and send the reset signal via a dedicated signal line to the computer component for the purpose of resetting the computer component to reestablish link with the SMBus/I2C bus architecture; and

15 an acknowledgement inspecting module, which is capable of being activated promptly after the issuing of the reset signal to inspect whether the linking between the data communication interface and the computer component via the SMBus/I2C bus architecture is acknowledged, and if YES, capable of issuing a reissue request to the temperature request issuing module to request the temperature request issuing module to reissue a temperature request signal via the SMBus/I2C bus architecture to the computer component to request the computer component to send back an operating temperature
20 message that indicates the current operating temperature of the computer component.

8. The computer component operating temperature inspecting system of claim 7, further comprising:

an alarm module, which is capable of generating a human-perceivable alarm message in the event that the acknowledgement inspecting module inspects that the linking between the computer component and the SMBus/I2C bus architecture is unable to be acknowledged after the resetting of the computer component..

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